

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

REC'D 10 MAR 2005

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Applicant's or agent's file reference TS 6417 PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 03/50991	International filing date (day/month/year) 12.12.2003	Priority date (day/month/year) 12.12.2002
International Patent Classification (IPC) or both national classification and IPC E21B4/00		
Applicant SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V.		



- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of sheets.

- This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 09.07.2004	Date of completion of this report 09.03.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Ott, S Telephone No. +49 89 2399-7429 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP 03/50991

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-14 as originally filed

Claims, Numbers

1-14 as originally filed

Drawings, Sheets

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/50991**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	4, 7-11
	No: Claims	1-3, 5, 6, 12-14
Inventive step (IS)	Yes: Claims	
	No: Claims	1-14
Industrial applicability (IA)	Yes: Claims	1-14
	No: Claims	

2. Citations and explanations

see separate sheet

POINT V

V-1. D1: US-4729675 discloses a system for use in a bore hole, such as a well bore, for axially coupling a tubular end (23) with a mandrel (42), the system comprising a tubular end, a mandrel for inserting into the tubular end in axial alignment thereof, thereby forming an annular space and that comprises two or more transmission units (66, 76) each being arranged for axially coupling the tubular end with the mandrel (see also explanation below), wherein the transmission units each comprise a first fixture element (66, 76), a second fixture element (89, 100), and spacer means (61, 96, 98) for maintaining an axial displacement between the first fixture element and the second fixture element, whereby the first fixture element is axially connectable to an inner surface of the tubular end and the second fixture element is axially connectable with the mandrel.

The subject-matter of claim 1 does therefore not meet the requirements of novelty in the sense of Art. 33(2) PCT.

The Belleville spring (58) compresses the various ball bearing race members toward each other with spacer sleeves (64), (70), (75) and (78) fixing the bearing races in selected positions (see D1, description col.5, l.40-43). The assembly comprising the elements (23), (56), (58), (59), (64), (66), (70), (71), (75), (76), (78) and (34) therefore forms one rigid assembly which is only disrupted in the exceptional case of ball failure (see description col.8, l.15-30). The same applies to the mandrel (42) and its corresponding sleeve elements. In normal circumstances, the transmission units (66) and (76) are therefore each arranged for axially coupling the tubular end with the mandrel.

V-2. D1 also discloses the subject-matter of claims 2, 3, 5, 6, 12, 13 and 14. The subject-matter of said claims does therefore not meet the requirements of novelty in the sense of Art. 33(2) PCT.

V-3. Dependent claims 4, 7-11 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step in the sense of Art. 33(3) PCT.